

10/602,680



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Wataru Itonaga

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EXAMINER

NGUYEN, DUSTIN

ART UNIT

PAPER NUMBER

2154

MAIL DATE

DELIVERY MODE

08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/602,680	Applicant(s) ITONAGA, WATARU	
	Examiner Dustin Nguyen	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-8, 10, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aziz et al. [US Patent No 6,597,956], in view of Lewin et al. [US Patent No 7,096,266].

4. As per claim 1, Aziz discloses the invention as claimed including a shared cache server being placed on a common network in which a plurality of virtual networks each being placed in a virtually partitioned manner is constructed corresponding to a plurality of groups, comprising:

a storage device to store contents in each of a plurality of storage areas allocated corresponding to said plurality of groups [col 6, lines 66-col 7, lines 8; and col 7, lines 26-42];

a plurality of virtual interfaces being placed in a manner to correspond to said plurality of virtual networks [i.e. control plane performs control actions on the computing grid through special control ports or interfaces] [Figure 9; col 5, lines 44-55; and col 14, lines 18-28].

Aziz does not specifically disclose

an address converting function section, when receiving a packet requesting for contents with a Uniform Resource Locator (URL) designated through one of said virtual interfaces,

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converts part of an Internet Protocol (IP) address contained in said packet to an internal address corresponding to a virtual interface having received said packet; and

a cache function section, based on an internal address converted by said address converting function section, reads contents from a corresponding storage area of said storage device.

Lewin discloses

an address converting function section, when receiving a packet requesting for contents with a Uniform Resource Locator (URL) designated through one of said virtual interfaces [i.e. HTTP get], converts part of an Internet Protocol (IP) address contained in said packet to an internal address corresponding to a virtual interface having received said packet [i.e. network address translation (NAT) for converting public and private addresses] [Figure 3A; and col 9, lines 13-col 10, lines 18]; and

a cache function section, based on an internal address converted by said address converting function section, reads contents from a corresponding storage area of said storage device [i.e. the CDN serves content from a surrogate that is optimal for a given requesting client] [col 1, lines 34-57; and col 15, lines 5-7].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Aziz and Lewin because the teaching of converting function in Lewin would allow to create a flexible, uniform platform that preferably is deployed both on the Internet and inside of corporations or other business entities and to provide new business services to the enterprises in a more efficient and cost-effective manner [Lewin, col 2, lines 30-45].

5. As per claim 4, Aziz discloses a storage capacity managing function section to manage storage capacity in a storage area in every said group [i.e. administrative and management functions] [Figure 13; col 5, lines 44-55; and col 19, lines 37-43].

6. As per claim 5, Aziz discloses wherein said storage capacity managing function section dynamically manages said storage area in every said group [col 4, lines 1-5].

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7. As per claim 6, Lewin discloses a Domain Name System (DNS) proxy function section to designate a server in which contents are stored when contents designated by said packet are not stored in said storage device [Figure 1; Abstract; and col 5, lines 14-21].

8. As per claim 7, Aziz discloses wherein said plurality of virtual networks each being placed in a partitioned and virtual manner is constructed in accordance with IEEE 802.1Q. Wang discloses wherein said plurality of virtual networks each being placed in a partitioned and virtual manner is constructed in accordance with IEEE 802.1Q [i.e. VLAN] [col 21, lines 31-42].

9. As per claim 8, Aziz discloses wherein said plurality of virtual networks each being placed in a virtually partitioned manner is constructed in accordance with MPLS Multi Protocol Label Switching (MPLS) technology [col 10, lines 31-39].

10. As per claim 10, it is rejected for similar reasons as stated above in claim 1.

11. As per claims 13-15, they are rejected for similar reasons as stated above in claims 4-6.

12. As per claims 16 and 17, they are rejected for similar reasons as stated above in claims 7 and 8.

13. Claims 2, 3, 9, 11, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aziz et al. [US Patent No 6,597,956], in view of Lewin et al. [US Patent No 7,096,266], and further in view of Leighton et al. [US Patent No 6,996,616].

14. As per claim 2, Aziz discloses a tag inserting function section to convert said internal address to a tag corresponding to said group [i.e. VLAN tagging] [Figure 17; and col 21, lines

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18-52]. Aziz and Lewin do not specifically disclose to insert said tag into said Uniform Resource Locator and wherein said cache function section designates contents based on said Uniform Resource Locator into which said tag is inserted. Leighton discloses to insert said tag into said Uniform Resource Locator and wherein said cache function section designates contents based on said Uniform Resource Locator into which said tag is inserted [i.e. URLs also may be modified to point to the CDN] [col 3, lines 48-51 and lines 59-64; and col 5, lines 1-10]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Aziz, Lewin and Leighton because the teaching of Leighton would provide a high-performance, fault-tolerant HTTP, streaming media and applications delivery in a content delivery network [Leighton, col 1, lines 13-15].

15. As per claim 3, Leighton discloses wherein said tag inserting function section converts, for a packet with a specified Uniform Resource Locator designated, said internal address to a specified tag being used commonly in said group [col 3, lines 44-col 4, lines 26].

16. As per claim 9, it is rejected for similar reasons as stated above in claims 1-3.

17. As per claims 11 and 12, they are rejected for similar reasons as stated above in claims 2 and 3.

18. As per claim 18, it is rejected for similar reasons as stated above in claims 1-3.

19. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

21. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for

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response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dustin Nguyen

Examiner

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A handwritten signature in black ink, appearing to read 'Dustin', with a long horizontal flourish extending to the right.